

## Senate Bill 2X

### High School Exit Exam Highlights

- Senate Bill 2X requires all students completing grade twelve to pass a high school exit exam in language arts and math commencing in 2003–04.
- The bill requires the State Superintendent of Public Instruction to develop and the State Board of Education to approve the exam by October 1, 2000.
- Beginning in 2000–01, grade nine students will be eligible to take the exam.
- Beginning in 2001–02, grade ten students will be required to take the exam.
- The law does not make the exam a requirement for graduation until 2003–04.
- If a pupil does not possess sufficient English language skills to be assessed by the exit exam, the district may defer the requirement that the student pass the exam “for a period of up to 24 calendar months of enrollment in the California public school system until the pupil has completed six months of instruction in reading, writing, and comprehension in the English language.”

### College Entrance Requirements

Parents generally know that many colleges require good high school grades for admission. Although grades are important, students do not have to have top grades to get into college. There are colleges for every student. You should also know that students need to take a specific series of college preparatory classes in high school, and the minimum requirements vary depending

on the selected college or university. The a–g requirements noted below are submitted by the Regents of the University of California and are generally the most rigorous:

- a. An English class every semester of every year for four years.
- b. A mathematics class every semester of every year for three years, including algebra and geometry. Four years are recommended.
- c. Two years of a laboratory science beyond the ninth grade. An additional year is recommended.
- d. Two years of history–social science, which are to include U.S. government, world history, culture, and geography.
- e. Two years of the same language other than English.
- f. Two years of college preparatory electives in addition to those required in “a–e” above.
- g. One year of visual and performing arts, effective for the entering class of 2003.

Every high school has a list of acceptable classes and can tell you how many should be taken. At least one class in the area of visual or performing arts is a good choice for many students.

To gain admission to college, your children must also take either the Scholastic Assessment Test (SAT) or the American College Test (ACT) and submit the scores. Find out when the tests are given and be sure your children sign up to take one of them.

# EARTH SCIENCES

## *The California High School Earth Sciences Content Standards*

CALIFORNIA  
DEPARTMENT  
OF EDUCATION

2001

# Earth Sciences

## Earth's Place in the Universe

1. Astronomy and planetary exploration reveal the structure, scale, and change of the solar system over time.
2. Earth-based and space-based astronomy reveal the structure, scale, and change over time of stars, galaxies, and the universe.

## Dynamic Earth Processes

3. Plate tectonics operating over geologic time has changed the patterns of land, sea, and mountains on Earth's surface.

## Energy in the Earth System

4. Energy enters the Earth system primarily as solar radiation and eventually escapes as heat.
5. Heating of Earth's surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents.
6. Climate is the long-term average of a region's weather and depends on many factors.

## Biogeochemical Cycles

7. Each element on Earth moves among reservoirs in the solid Earth, oceans, atmosphere, and organisms as part of biogeochemical cycles.

## Structure and Composition of the Atmosphere

8. Life has changed Earth's atmosphere and changes in the atmosphere affect conditions for life.

## California Geology

9. The geology of California underlies the state's wealth of natural resources as well as its natural hazards.

## Investigation and Experimentation

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content of the other four strands, students should develop their own questions and perform investigations. Students will:
  - a. Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.
  - b. Identify and communicate sources of unavoidable experimental error.
  - c. Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.
  - d. Formulate explanations using logic and evidence.
  - e. Solve scientific problems using quadratic equations and simple trigonometric, exponential, and logarithmic functions.

- f. Distinguish between hypothesis and theory as scientific terms.
- g. Recognize the usefulness and limitations of models and theories as scientific representations of reality.
- h. Read and interpret topographic and geologic maps.
- i. Explain the relative locations, sequences, or time intervals that are characteristic of natural phenomena (e.g., relative ages of rocks, locations of planets over time, and succession of species in an ecosystem).
- j. Recognize the issues of statistical variability and the need for controlled tests.
- k. Recognize the cumulative nature of scientific evidence.
  1. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.
- m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.
- n. Know that when an observation does not agree with an accepted scientific theory, sometimes the observation is mistaken or fraudulent (e.g., the Piltdown Man fossil or unidentified flying objects), and sometimes the theory is wrong (e.g., the Ptolemaic model of the movement of the sun, moon, and planets).